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On the History of Mathematical Education in Italy

Abstract :

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A recent volume retraces the history of mathematics education in Italy (Insegnare matematica), not how it was planned, but how it was actually carried out, taking up a project of Emile Durkheim (1913) which is now put into effect for various countries. Mathematics has almost always been a globalized discipline: Archimedes from Sicily and Apollonius from Turkey went to study in Alexandria in Egypt. Many other phenomena of globalization have been recorded with regard to the teaching of mathematics and to textbooks in particular: six books of Euclid's Elements, edited by Cristoph Clavius, were translated into Chinese by the Jesuit, Matteo Ricci, in 1607. Throughout the seventeenth century the Jesuits exported European works on mathematics and astronomy to India, China, and the Americas. Within the bounds of Italy alone, the most popular manuals of arithmetic and geometry for more than a century were those by the Belgian Jesuit, Andreas Tacquet (1612-1660): Elementa geometriae planae ac solidae (1654), Arithmeticae theoria et praxis (1665). Other manuals by Clairaut, Bossut, Lacroix, and Legendre, translated into Italian, had a huge impact and replaced the former, which bring us up to the middle of the nineteenth century. Today there is a wide range of books on elementary mathematics on the site: Mathematica Italiana. On the other hand, it must be said that mathematics is very much a part of the culture of a nation and although Italy has its own peculiarities (has a long tradition in humanities), it cannot be denied that mathematical sciences played a

big role in its culture. Literary tradition in Italy dates back to at least the fourteenth century with such figures as Dante, Petrarca and Boccaccio, who were themselves well versed in scientific subjects, but almost a century before them was Leonardo Pisano whose work placed Italy in the forefront as far as the study of mathematics was concerned. Italian may be considered the first one of still spoken languages which can boast a work on mathematics, i.e., an abacus in the Umbrian vernacular which dates back to the thirteenth century. In their own way, the Jesuits and other religious orders gave a cultural unity to Italians for almost three centuries, from the sixteenth to the nineteenth century, since they practically made up the ruling class. It is no easy matter to gather important elements of contextualization without posing limits on temporal and spatial horizons, for example limiting oneself to a single country. Ignoring these characteristics leads one to plan reforms, fortunately inapplicable, by copying rules and regulations from other countries whose diversity makes them basically incompatible.

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